Gillingham

Urban District Council.

Medical Officer's

Report

For the year ending 31st December, 1898.

New Brompton Printing Works, 54, High Street

MEDICAL OFFICER'S REPORT.

High Street,
New Brompton, Kent.
March, 1899.

To the Chairman and Councillors of the Gillingham Urban District Council.

Gentlemen,

It is my privilege to report to your Council on the general sanitary condition of the Gillingham Urban District during the year ending December 31st, 1898, to review the causes affecting the health of the locality, and to summarise the action taken for preventing the spread of disease.

Much has been done during the last few years to conduce to the sanitary welfare of the population. It is gratifying to see the general desire amongst the members of the Council to rise to their responsibilities for the safeguard of the public health.

The cardinal conditions of good sanitation are pure air, pure water, good drainage, wholesome food, proper clothing, suitable dwellings, and a dry subsoil; and to endeavour to secure these benefits to the people whose interests they represent should be the prime aim of every Council.

A true calculation of the population of Gillingham, and of the vital statistics thereon dependent, is a somewhat difficult matter. In the first place this town is so rapidly growing that every year, as we are more removed from the date of the last census, we are the less sure what is the number of our resident population, shewing, in my opinion, a great necessity for the census to be taken every five years.

VITAL STATISTICS.

Population (1891 Census)...	27,813
Estimated Population, 1898	34,740
Area in Statute Acres	4,302
Total Deaths registered	508
,, ,, ,, with Institutions...	556
Death Rate per 1,000 population, 1898	14·6
,, ,, ,, ,, including Institutions	16·0
Total Births Registered	1,015
Birth Rate per 1,000 population	29·2
Zymotic Death-Rate per 1,000 population	3·4
Notifications Received	253
Notification Rate per 1,000 population	7·2

The death rate this year is slightly higher than last year, which was 13·0 per thousand. This cannot be attributed to any epidemic, as although the death rate of diphtheria for the last quarter of the year was slightly above the average, taking the whole year it was not excessive, and the average death rate of London and large towns ranges from 17·0 per thousand to 21·9 per thousand, some towns as high as 28·8.

The following is an epitome of the ages at which deaths occurred in this district, including those which also died at the Infirmary Workhouse, and St. Bartholomew's Hospital :—

Deaths under 1 year of age	160	242 under 5 years.
,, over 1 year and under 5	82	
Deaths over 5 years and under 15	37	266 over 5 years.
,, ,, 15 ,, ,, 25	21	
,, ,, 25 ,, ,, 65	118	
,, ,, 65 years	90	
Total ...	508	

In the Workhouse Infirmary, and St. Bartholomew's Hospital :—

Deaths under 1 year	*Nil.*
Deaths over 1 year and under 5	2
,, ,, 5 years ,, 15	2
,, ,, 15 ,, ,, 25	10
,, ,, 25 ,, ,, 65	21
Deaths over 65 years	13
Total	48

Which makes the total number of deaths for the district, including Institutions, 556, which, calculated on a population of 34,740, gives a rate of mortality of 16·0 per thousand as against 13·0 for the previous year, and deducting those dying in public institutions, but belonging to the district, gives a death rate of 14·6 per thousand.

The numbers for the respective quarters were as follows :—

First Quarter	136
Second Quarter	100
Third Quarter...	175
Fourth Quarter	145

The above figures show—with the exception of September, when the mortality from infantile diarrhœa was marked, there was no great variation in the monthly returns.

The totals for the respective months were :—

	Institutions.	District.	Total.
January	4	40	44
February	3	36	39
March	5	48	53
April	4	29	33
May	3	33	36
June	4	27	31
July	4	28	32
August	5	57	62
September	5	76	81
October	4	47	51
November	3	33	36
December	4	54	58

Total in Institutions and District ...	556
Total without Institutions ...	508

The number of deaths from zymotic diseases (that is diseases which are regarded as due to invasion of the system from without by a definite ferment or poison which grows and multiplies in the body) were as follows during the year 1898 :—

Scarlet Fever	2
Enteric or Typhoid Fever	6
Whooping Cough	7
Diarrhœa	54
Measles...	19
Diphtheria	31
Total	119

Which gives a zymotic death rate of 3·4 per thousand as against 2·5 per thousand for last year. In last year's report there were no deaths from Measles, but Diarrhœa and Diphtheria caused more deaths this year, so that would account for the slightly increased percentage of zymotic deaths. The zymotic death rate in the large towns varies from 1·6 per thousand to 4·1.

From diseases of the respiratory organs, excluding Phthisis, there were 72 deaths, as compared with 65 during 1897 and 79 in 1896.

From Phthisis or Tuberculosis there were 28 deaths, as compared with 20 in 1897 and 35 in 1896.

Diseases of the heart caused 32 deaths, and 11 were caused by various forms of injuries.

Under the Notification Act, which has been in force in this district since 1889, and is a very effectual check to the spread of infectious diseases, as I am able on receipt of certificate to see patient is properly isolated and drainage of property attended to. The following cases for the year 1898 have been reported to me:—

	Erysipelas.	Scarlet Fever.	Diphtheria.	Enteric Fever.
January	3	9	1	—
February	—	3	2	1
March	1	13	2	1
April	1	4	—	—
May	—	10	4	1
June	6	7	10	—
July	2	1	12	—
August	1	2	15	1
September	4	12	13	7
October	4	17	14	3
November	1	14	17	1
December	2	8	18	1

Of these cases the following were conveyed to our Infectious Hospital and there treated:—Diphtheria, 20; Scarlet Fever, 24; Enteric Fever, 4; Erysipelas, 1.

The Scarlet Fever cases. Number notified during the year 100; but of these only 2 died, shewing the mildness of type of these cases.

Of Diphtheria 111 cases were notified. Of these 31 died, 19 of them in the last quarter of the year, as a large number of house connections are being made to the main sewer, opening of the ground, emptying of old privies; also building of a large number of new houses, which are raised on agricultural and made ground, and occupied before being thoroughly dry. And again, in my own experience, cases being left too long before medical aid is called—parents thinking that mumps was the cause of the child's illness—have tended to swell the number of deaths from this disease. The cases during this quarter were scattered over the district and not confined to any particular sets of streets or schools. Since 1896, when we had such a severe epidemic, the disease has never thoroughly left us, and while the connections of sewers are being made we shall not entirely stamp it out; also, in my opinion mild cases often attend school unrecognised either by parents or teachers, and only when other children in the same class develope the disease on investigation one finds that a child had a sore throat, which when watched developes what is known as Diphtheritic Paralysis, a sure sign that the disease has been present, but mild; and those mild cases are the ones we mostly dread as being very often the starting point of an epidemic. Therefore, in my opinion, all school teachers should exclude children with any sign of sore throat, and not allow them again to attend without a medical certificate of health, which would greatly help us in our endeavour to stamp out this most fatal disease. On receiving a notification one is in a position to see that the patient is isolated either at hospital or home, and proper precautions taken for allowing no children from infected houses to attend school or mingle with other children who are going; to see that rooms and clothing are properly disinfected, that part being undertaken in all cases by the Local Authority, and any sanitary defects are immediately remedied.

Of Enteric Fever, 16 cases were notified, 4 of these were conveyed to hospital, and of the total number 6 died.

Whooping Cough caused 7 deaths, all amongst children under 5 years of age.

Measles, which does not come under the Notification Act, caused 19 deaths, as against none for last year. This complaint is treated much too lightly by parents. Children are allowed to go out too early—often developing Bronchitis—and also allowed to attend school and mix with other children before the infection is past. A number occurred at Gillingham School. I had a consultation with the Vicar of Gillingham and heads of the school, when a fortnight's holiday was agreed upon, and no children allowed back from an infected house without a medical certificate, which, in my opinion, cut short in all probability a severe epidemic.

Diarrhœa and Dysentery caused the largest number of deaths of any zymotic disease, 54 being registered, and mostly infants under 5 years of age Most of the deaths occurring in August and September, there being 16 in the former month and 28 in the latter. Infants fed on artificial milk are the principal sufferers. All milk for them should be boiled before being used, and bottles thoroughly scalded out; also not be too anxious to give them food which is quite unsuitable for their digestion.

I now proceed to give you a table of vital statistics for the last five years :—

Year.	Births.	Deaths from all Causes.	Deaths from Zymotic Diseases.	Birth Rate.	Death Rate.	Zymotic Death Rate.
1894	907	344	23	30·0	11·3	0.7
1895	932	360	36	29·4	11·3	1·1
1896	1010	509	149	31·2	15·5	4·5
1897	999	400	86	29·6	13·0	2·5
1898	1015	508	119	29·2	14·6	3·4

The number of Births registered during the year was 1,015, as against 999 for the previous year, and were as follows for the months:—

	Males.	Females.	Totals.
January	50	43	93
February	41	36	77
March	50	40	90
April	40	49	89
May	53	28	81
June	40	37	77
July	50	36	86
August	39	43	82
September	34	38	72
October	40	44	84
November	44	44	88
December	47	49	96
Total	528	487	1,015

According to our increasing assessments and to other methods for determining the increase or otherwise of population, I come to the conclusion that our population to the middle of 1898 was 34,740, which gives us a birth rate of 29·2 per thousand, as against 29·6 for 1897.

The following are the rates for 1898 in England and Wales:—

Birth rate, 29·4 per thousand living.
Death rate, 17·6 ,, ,,
Zymotic rate, 2·22 ,, ,,

The geological formation of our district is soil, part loam and part gravel, with subsoil of chalk and brick earth.

The system of Sewerage which has been adopted is partially in working order, in that all mains are laid. Connections from mains up to property are being rapidly laid on, and houses are also being joined, so that a fair proportion of the property is completely joined; and in all cases where cesspools or privies become a nuisance, they are emptied and notices served on owners to join up. The mains are also used for pumping into, saving a large amount of labour, and avoiding a great nuisance of night carts travelling through the district.

The following numbers have been attended to during the year, viz:

Cesspools	1241
Privies	403
Total	1644

Cesspools and privies having been emptied are filled in as connections are made to the main.

Our water supply still keep good and abundant, and when closets are properly fitted for the new systems of sewerage, the Water Company are acquiring more land, fitting new engines, and making more reservoirs so as to be able to cope with any quantity that may be required.

The removal of house refuse is still carried on systematically by the local authority, under the direction of the Sanitary Inspector. The system is a decided improvement on the old one of allowing house refuse to stand for a length of time in the back yard, as now every householder can have his refuse removed ~~twice~~ 3 time a week by standing his dust bin (which should be a covered one, so as not to allow dust and paper to blow about the street, it giving the men more work and creating a nuisance which is preventable) outside his house.

LOCAL RAINFALL IN 1898.

	Total Depth. Inches.	Days on which ·01 or more fell.	Average for 5 years 1893–7.
January	·32	6	1·79
February	·91	9	1·52
March	1·71	10	1·79
April	1·47	9	1·20
May	3·04	18	·82
June	1·85	11	1·87
July	·58	5	2·55
August	1·42	10	2·11
September	·32	4	2·30
October	2·08	14	2·68
November	2·44	12	2·30
December	1·72	10	2·37
Total	17·86	118	23·30

The above table shows that on 118 days of the past year there has been a fall of ·01 inches and more rain; the greatest fall in 24 hours being ·97 inches on August 7th, and only on seven occasions has there been more than half an inch, and no single fall of one inch has been recorded.

The total rainfall for the year is only 17·86 inches as compared with 23·30 inches, the average of the five previous years (1893–7), and these, with the exception of 1894, were very dry, and below the average. The years 1889, 1890, 1891, and 1892 were carefully recorded by F. Baker, Esq., of Frindsbury, and were 26·83 inches, 25·81 inches, 27·97 inches, and 30·06 inches respectively. This proves the rainfall during the last six years to have been below the average; the only break being in 1894 when 28·41 inches fell. It must also be remembered that of the 17·86 inches for the year 1898, 8·68 inches fell in the summer months—April to September—and it is generally supposed that the whole of the water falling within this period is lost by evaporation and vegetation, that is to say that during this period practically none of the rain percolates into the earth for replenishing the springs which form our source of supply. Although we are in these towns blessed with a good supply of water, this decrease in the rainfall should act as a warning to those who lavishly waste water. For the guidance of those who cannot realise the meaning of one inch of rain, I may add that it equals 22,000 gallons per acre, or 14½ million gallons per square mile.

Dairies, Cowsheds, Slaughter Houses, Fish Shops, Bakehouses, Piggeries, Factories, and Workshops have all been inspected periodically, and when notices have been served to clean or repair premises it has always been done satisfactorily.

The water from ten wells in the district has been analysed chemically and bacteriologically, and as it was found to be impure and unfit for domestic use, the wells were closed and water from the main system laid on. There are now but few wells remaining in the district.

The Inspector and Assistant-Inspector work well, and I consider them very efficient officers.

Trusting your Council will be satisfied with the information contained herein.

I remain, Gentlemen, your obedient Servant,

E. C. WARREN,

Medical Officer of Health.

M 3. (A)

Table of **DEATHS** *during the Year 1898, in the Gillingham (Kent) Urban District, classified according to* DISEASES, AGES, AND LOCALITIES.

NAMES OF LOCALITIES adopted for the purpose of these Statistics; public institutions being shown as separate localities.	Mortality from all causes, at subjoined ages								Mortality from subjoined causes, distinguishing Deaths of Children under Five Years of Age.																					
	At all ages.	Under 1 year	1 and under 5	5 and under 15	15 and under 25	25 and under 65	65 and upwards		1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22
													Fevers.																	
									Smallpox	Scarlatina	Diphtheria	Membranous Croup	Typhus	Enteric Typhoid	Continued	Relapsing	Puerperal	Cholera	Erysipelas	Measles	Whooping Cough	Diarrhœa & Dysentery	Rheumatic Fever	Phthisis	Bronchitis, Pneumonia, and Pleurisy	Heart Disease	*	Injuries	All other Diseases	TOTAL
(*a*)	(*b*)	(*c*)	(*d*)	(*e*)	(*f*)	(*g*)	(*h*)	(*i*)																						
Gillingham (Kent)	508	160	82	37	21	118	90	Under 5	—	1	17	1	—	1	—	—	—	—	—	16	7	49	—	2	31	3		1	117	246
								5 upwds.	—	1	14	1	—	5	—	—	—	—	1	3	—	5	1	26	41	29		10	125	262
The subjoined numbers have also to be taken into account in judging of the above records of mortality.																														
Deaths occurring outside the district among persons belonging thereto.	48		2	2	10	21	13	Under 5			1																		1	2
								5 upwds.						1					1					6	2	3		6	27	46
Deaths occurring within the district among persons not belonging thereto.								Under 5																						
								5 upwds.																						

* The heading of column 19 is left blank for the insertion of Influenza, or any other disease which it may be thought desirable to record.

M 11. (B)

Table of **POPULATION, BIRTHS, AND OF NEW CASES OF INFECTIOUS SICKNESS,** *coming to the knowledge of the Medical Officer of Health, during the Year 1898, in the Gillingham (Kent) Urban District; classified according to* DISEASES, AGES, AND LOCALITIES.

NAMES OF LOCALITIES adopted for the purpose of these Statistics; public institutions being shown as separate localities.	Population at all ages.		Registered Births	Aged under 5 or over 5	New Cases of Sickness in each Locality, coming to the knowledge of the Medical Officer of Health.													Number of such Cases Removed from their Homes in the several Localities for Treatment in Isolation Hospital.												
	Last Census	Estimated to middle of 1898			1	2	3	4	5	6	7	8	9	10	11	12	13	1	2	3	4	5	6	7	8	9	10	11	12	13
									Fevers.													Fevers								
					Smallpox	Scarlatina	Diphtheria	Membranous Croup	Typhus	Enteric Typhoid	Continued	Relapsing	Puerperal	Cholera	Erysipelas			Smallpox	Scarlatina	Diphtheria	Membranous Croup	Typhus	Enteric Typhoid	Continued	Relapsing	Puerperal	Cholera	Erysipelas		
(*a*)	(*b*)	(*c*)	(*d*)	(*e*)																										
Gillingham (Kent)	27813	34740	1015	Under 5	—	19	32	1	—	1	—	—	—	—	25			—	7	9	—	—	—	—	—	—	—	—		
				5 upwds.	—	81	79	1	—	15	—	—	—	—	—			—	17	11	—	—	4	—	—	—	—	1		

State here whether "Notification of Infectious Disease" is compulsory in the District. Yes. Since when? 16th December, 1889. Besides the above-mentioned Diseases, insert in the columns with blank headings the names of any that are notifiable in the District, and fill the columns accordingly. State here the name of the Isolation Hospital used by the sick of the District. Mark (H) the Locality in which such Hospital is situated: and if not within the District, state where it is situated. Gillingham Infectious Hospital.